

Approved August 27, 2006 at Sipe White Mountain Wildlife Area in Springerville, Arizona. Motion by Valerie Morrill, second by Jim Jett, approved as presented by unanimous vote.

**Heritage Fund Public Advisory Committee Meeting**  
Meeting Minutes  
June 3, 2006  
AZGFD Region II Office  
Flagstaff, Arizona

**Committee Members:**

Bob Hernbrode, Tucson (Chairman) - Present  
Paul Gomben, Show Low – Present  
Ron Smith, Pinetop-Lakeside - Present  
Clair Harris, Flagstaff - Present  
Maggie Sacher, Marble Canyon - Present  
Jim Jett, Kingman – Present  
Randy Lamb, Prescott - Present  
Nick Heatwole, Yuma - Present

Valerie Morrill, Yuma - Present  
Ron Bemis, McNeal – Present  
Roseann Hanson, Tucson - Present  
Tony Nelssen, Scottsdale - Absent  
Gary Barcom, Payson - Present  
Heidi Vasiloff, Goodyear - Present  
Brian Pinney, Chandler - Absent  
Dr. Jack Miller, Gilbert - Present

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**1. Call to Order and Opening Remarks:** Commissioner Bob Hernbrode, Chairman called the meeting to order at 8:00 a.m. The Chair opened the meeting by expressing his appreciation on behalf of the Heritage Fund for their time, effort and dedication.

**2. Introductions**

- a. **Committee Members:** Chairman Hernbrode asked Committee members to introduce themselves.
- b. **Department Representatives:** Deputy Director, Steve Ferrell, Heritage Fund Administrator, Ashley Ross, and other present department staff introduced themselves.

**2. Approval of Minutes from January 2006:** Upon motion by Ron Bemis and seconded by Jim Jett, the minutes were unanimously approved.

**3. Presenters:** Robyn Beck, Heritage Grant Coordinator, presented information regarding the Heritage Fund grant program supported by handouts. Robyn Beck began by outlining the specific guidelines and principles governing the grant program. Highlights of the guidelines included describing the five subprograms – Urban, IIAPM, Schoolyard, Public Access and Environmental Education. This information is available on the handouts or on our website. The new grant manual for the 2007 grant season will be available shortly and will be made available to all members. There were 59 grants received last November and \$1,965,040 total dollars requested. Twenty-two grants worth \$645, 222 were awarded in May 2006.

Amendments to the 2007 Heritage Fund Grant manual include changes to the preferred projects list and grant dollars available. The dollar figures are available in the handout, on the web site or in the new grant manual. The new grant manual is currently being revised and will soon be available. Workshops have been scheduled for the following cities: Yuma, Flagstaff, Kingman, Tucson, Safford, Pinetop and Phoenix. Robyn Beck extended an invitation to any members who would be interested in attending the workshops, and suggested that new members would find it educational. Grant applications will be accepted this year until November 20, 2006 at 5:00 pm. Mrs. Beck suggested that grant applicants submit their grant applications two weeks before the end date so she has time to work with applicants who may be missing mandatory components.

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The Committee comment and discussion focused on questions regarding the Department's anticipated funding of wildlife corridor planning, match funding, qualifying requirements for Heritage grants, and participation in the grant prioritization process.

The Department is actively involved with the United States Department of Transportation and with the Arizona Department of Transportation in designing wildlife corridors along several highways including Highways 60, 230, 68, S40 and 160. The Department efforts also involve cost-sharing personnel with counties like Pima and Coconino. These staff members work with county planning committees and communities to allow the Arizona Game and Fish Department input into the planning and permitting processes. In every Regional office there are also two habitat personnel who review plans and permits, and who work to positively affect the planning process based upon the city rules and regulations.

Qualifying organizations include Conservation Districts as well as Conservation Education Centers that are recognized by a Conservation District with a Memorandum of Understanding. In the Schoolyard grant program, the school district and the superintendent are the applicants; however, in rural areas, some principals may have signatory authority.

Discussion about the upcoming grant session included a range of topics including grant locations, encouraging members to participate in attending the workshops and the difficulties of getting teachers to attend workshops due to problems like schedule conflicts.

Emphasis was placed on member participation in the Heritage Fund Grant Prioritization Process. The opportunity to get an inside look at the Department and to influence how grant money is spent was mentioned as part of the satisfaction of participating. A suggestion was made to change the charter and allow two HPAC members to attend each grant selection committee. Commissioner Hernbrode stated that he would discuss the suggestion during an upcoming Commission meeting. Comments were heard regarding the difficulty some members experience due to the length of the grant selection committees. A suggestion was made to break the longer grant selection committees into 2-3 day lengths instead of 7-8 day commitments. Another solution included the use of online meetings or email correspondence. However, it was noted that the need for equal and fair consideration for all grant applications requires a level of continuity and open competition that would be compromised by these suggestions. The Department will consider these concerns and try to come up with possible options.

**Presenter:** Cameron Kern, Executive Director of Friends of Camp Colton, presented information regarding the Flagstaff School District's experiential education center, Camp Colton. The facility has excited Flagstaff's Sixth graders for over 35 years and is now educating 2<sup>nd</sup> and 3<sup>rd</sup> generation campers. It is part of Project L.I.F.E. (Life in the Flagstaff Environment) and educates 1,000 sixth grade students every week. Every 6<sup>th</sup> grader in the Flagstaff school district, no matter their disability or achievement level, attends the camp for one week.

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As with many programs, Camp Colton has faced difficult funding issues. To counter shortfalls in the school district, the directors of the program created a 501(C)(3) nonprofit limited liability corporation called Friends of Camp Colton. Through fund raising, grant writing, community involvement and strategic planning, Friends of Camp Colton has been able to create a more stable financial future for the Camp. Part of the future stability involves inviting more schools from outside the school district to participate. Grand Canyon, Sedona and Flagstaff Unified public school districts have been identified as potential participants in the Camp Colton experience. They are working to offer a year round program and add 200 students per year.

Committee comment and discussion focused on opportunities to expand the customer base of the Camp. Other questions involved the level of funding required to operate Camp Colton. Mr. Kern responded by answering that the annual operating budget for the Camp is \$300,000. The school district supplies 25% of the operating budget, but also supplies many value-added additions such as transportation, office space, and maintenance. Camp Colton has received several small grants from the Game and Fish Heritage Fund as well as other sources and was just awarded one of this year's grants in the amount of \$5,622.

Topics of discussion included the distance from nearest school (15 miles) and the ability to offer their space as part of a schoolyard habitat. Questions were raised about who teaches the students and if they were looking for volunteers to participate. Mr. Kern replied that while the classroom teacher accompanied the students to Camp, they hire a professional staff that teaches 30 academic competencies that fit the Arizona State Standards. Members commented that by providing a meaningful wilderness experience to young people, it makes the HPAC's job easier by teaching conservation at an early age. Students realize how neat it is and how important it is to preserve our habitat.

4. **Presenter:** Dr. Carol Chambers, Professor with Northern Arizona University provided information about Charismatic Micro fauna. Charismatic micro fauna are small vertebrate mammals that should evoke sentimental support from the general public, for example bats and voles. The reason they should be considered so important is because they are the bases that mega fauna species, such as bears, bobcats and hawks, need to survive. Many prey species are required to support the predator species. Services that prey species perform for our ecosystems are: food for predators, spread of mycorrhizal fungi, seed dispersal, invertebrate controls and ecosystem condition indicators. Dr. Chambers discussed three micro faunal species: the Spotted bat, the Southwestern myotis and the Mogollon vole.

The spotted bat is one of America's most striking mammals. Initially thought to be extremely rare, the spotted bat is now known to occupy a rather large range throughout central western North America from southern British Columbia to northern Mexico. From its first scientific discovery in 1891 until 1965, only 35 specimens were known to science. Even now, it is one of America's least known animals, but the rarity with which it is observed likely does not reflect its true status in nature. Its habits and choice of roosting sites high in cliff crevices make the spotted bat difficult to observe. The Spotted bat weighs between 16-20 grams with a wingspan of 34-38 centimeters and its large ears are 42-50 millimeters long. The Spotted bat is able to fly up to 30 miles per hour. In

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the summer of 2005, 40 Spotted bats were captured and 11 were radio tagged. Information collected included the locations and conditions of eleven roosts. Foraging and roosting areas were studied and were the basis for creating a successful Spotted bat habitat model. The hope is to locate continuous roosting habitats. Several publications will be created from this research including a Master's thesis, four manuscripts and seven presentations for regional, national, and international conferences.

The Southwestern myotis weighs 5-8 grams with a wingspan of 26-30 cm and ears that measure 17 mm. its flight speed has been recorded at 8 mph. It is the subject of a current Heritage Fund grant project. One of the significant outcomes from the study is to identify the importance of mature stands of Gambel oak to many species, including the Southwestern myotis. Mature stands of Gambel oak are under constant pressure from many sources including illegal cutting for firewood, elk and livestock grazing, drought and wildfires. Less than 1% of Gambel oaks are large enough to house maternity colonies of Southwestern myotis. Several publications are expected from this research including a Master's thesis, one manuscript and four presentations for regional, national, and international conferences.

The Mogollon vole weighs only 34 grams and lives in open, grassy meadows. They are a good habitat condition indicator because of their low tolerance for dry conditions. The study looked at differences between eating preferences and frequency of runway construction between fenced non-foraged areas and areas grazed by elk and cattle. Stable isotope analysis on hair samples collected from animals captured in northern Arizona between 1967 and 2003, was used to determine the diet of the voles. Using the collected data, scientists investigated the flow of carbon from plant to insect to animal. The research indicated that voles were more likely to eat C3 plants such as cool season grasses, forbs and trees. Examples of these plants are yarrow, snakeweed, lupine, fescues and Ponderosa pines. Changes in plant species composition or reduction in C3 plants in montane grasslands and forests through excessive ungulate grazing or introduction of invasive plant species could be harmful to this prey species, leading to predator extirpation. Several publications will be available based upon this research including a Master's thesis, three manuscripts and five presentations for regional and national conferences.

Committee comment and discussion about the Spotted bat questioned what would cause the bat to fly 20 miles from their roosts to the riparian areas and back, radio tagging time frames, other Arizona locations for the Spotted bat and rabies occurrences. Dr. Chambers speculated that since they exclusively eat moths, they are flying to search for drinking sources and food. Members were told that the radio tags lasted 10-12 days at maximum. Dr. Chambers replied that she had consulted with Tim Snow (AZGFD Region V Non-Game Specialist) and he does not recall any Spotted bats in the southern parts of Arizona. There were no records of rabies among Spotted bat populations, but since the only way to test for rabies was to kill the animal, it was always possible. However, it was unlikely to be a problem due to the solitary nature of the species.

Committee members inquired about whether Dr. Chambers was working with researchers at the Rocky Mountain Research Station and in particular with Gerald Gottfried who was studying the dynamics of plant communities. She replied that while they were not working on the project

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together, they were in contact with each other occasionally. Members asked if the Southwestern myotis was adaptable to roosting in other species of trees. Dr. Chambers replied that from all indications the answer was no. However, since other species with similar roosting habits will make use of artificial roosts, it may be possible to supplement or augment the Southern myotis roosting habitat. Members questioned whether there had been any studies after large fires. She replied that it had not been studied, but since wildfires caused Gambel oak to sprout, they might have an overall beneficial effect.

The Committee asked about the expense of radioisotope studies, comparison across vole populations and the difficulty of studying voles. Dr. Chambers reported that each isotope sample cost \$9.00 and additional analysis for hydrogen, carbon or nitrogen became progressively more expensive. Vole populations were not comparable because while they are genetically similar, they are not subspecies to each other. Voles are extremely difficult to study because of the cyclical, fluctuating nature of the species and the long length of time required to collect data. In the years she has studied voles, in one out of five years, she will find an abundant population.

The Committee was interested in the Bat Conservation International studies and publication advocating conversion of water tanks and troughs into bat friendly watering devices. Members recommended attending a workshop on June 10<sup>th</sup> and 11<sup>th</sup> where attendees would install wildlife escape ramps in livestock water troughs on public and private lands.

5. **Presenter:** Dr. Paul Beier, Professor at Northern Arizona University, presented information on Arizona's missing linkages collaborative efforts. This effort hopes to integrate transportation projects, land-use planning, and wildlife movements to conserve and restore wild land connectivity throughout the state of Arizona. Arizona's effort follows the Southwest Coast (California) missing linkages program. Arizona's partners include: Arizona Department of Transportation, Federal Highway Administration, United States Fish and Wildlife Service, Bureau of Land Management, United States Forest Service, Northern Arizona University, Wildlands Project and Arizona Game and Fish Department. The project began with a statewide workshop in 2004, attended by over 100 participants representing 20 agencies. During this workshop land managers and biologists worked to identify core wildlife areas and potential linkages. In the end, 120 possible linkages were identified. These linkages were prioritized by consideration of the immediacy of the threats and opportunities.

Linkage considerations were also driven by focal species. The overriding goal was to preserve ecosystem processes such as the hydrologic cycle, the mineral cycle, community dynamics and energy flow, certain 'umbrella' species requiring a range of mobilities and habitat affinities are the necessary driver behind the linkages program. Focal species include plants, invertebrates, mammals, reptiles, amphibians and sedentary birds. Examples of these umbrella species include black bears, bighorn sheep and pumas, desert tortoises and flat-tailed lizards.

Through GIS analysis of elevation, vegetation/land use, topography and road density, a Biologically-Best Corridor was identified for each linkage. After extensive literature review, an area with the lowest cost of travel for focal species between protected core areas was identified.

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Corridors are designed to serve the needs of all the species in the area. Other considerations in the design and implementation include locations and types of highway crossing structures, removal of land and water barriers, compatible land uses and zoning, easements and land acquisitions. This is a scientific tool that can educate agencies, allow informed decisions, and create a platform for multiple party discussions into solutions. A much anticipated wildlife linkages publication is close to completion and will provide information about wildlife corridors to a wider audience.

Dr. Beier spoke about the successful Coal Canyon Project in California. Coal Canyon is a 681-acre parcel of land bisected by the Riverside Freeway (California Route 91). This small area of land within an hour's drive of Los Angeles's 15 million inhabitants is home to many species, including mountain lion, deer, bobcat, and the California gnatcatcher. As the only remaining viable link between the Puente-Chino Hills State Park in the north and the Santa Ana Mountains and Cleveland National Forest in the south, the significance of Coal Canyon's preservation is far larger than its relatively small size. As many as 21 vertebrate species were likely to be severely affected and possibly extirpated from the Puente Chino Hills without full restoration of this linkage.

Committee comment and discussion included questions about how corridor design had been analyzed and improved. A Committee member mentioned there was an article in The Journal of the Rocky Mountain Elk Foundation (Volume 22 | Issue 6 | Nov/Dec 2005), which discussed aspects of the linkages program. (The article was written by Ben Long and entitled "Curbing the Carnage".) Members asked about reductions in animal mortalities. Dr. Beier reported that along the Transcontinental Highway in Canada, the addition of alternate pathways for animals had reduced large mammal fatalities by 99%. On average it takes a year for animals to incorporate the corridors into their routine. The Committee was interested in learning if predators targeted the end of the bridges as easy food sources. Dr. Beier replied that it almost never happened. This was most likely due to the fact that animals have more to do than hunt for food, like patrol their territories.

Members were interested to know if the book would be a static document. Dr. Beier replied that it would have to be a living document due to changing priorities. Members suggested that more round table discussions could take place to bring more players with local expertise to the table. Concerns were raised about whole agency involvement, instead of localized within one office. Dr. Beier replied that there was greater acceptance across agencies than ever before. Members were interested in the cost-benefit studies; however, Dr. Beier said that he did not get involved in that. The partners who implement the corridors performed the cost-benefit analysis. When a highway improvement project is already scheduled, adding a wildlife corridor only adds approximately 5%-6% to the overall costs. Members also commented that many insurance companies are in favor of corridors, because they reduce damages and fatalities caused by human and mammal collisions.

6. **Call to the Public:** No members of the public requested to be heard.

7. **Open Committee discussion**

- a. **Open Committee Discussion.** The Chairman opened discussion. Co-chair selection proceeded with Jim Jett and Ron Bemis being nominated for the position. Both candidates gave brief

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descriptions of their backgrounds. Jim Jett was confirmed by a vote of 9-7. The workshop discussed during Dr. Chamber's presentation was mentioned as being part of the Diablo Canyon Rural Planning brochures that were provided. It was mentioned that the Diablo Canyon Rural Planning was trying to develop economical ways to develop conservation areas by revising planning documents and zoning plans.

Plans for the August 26, 2006 meeting at Sipe White Mountain Wildlife Area were discussed and details will be made available shortly. A suggestion was made that the Regional representatives participate in the elective social event, to give the members a chance to showcase their areas and be a resource for Ashley Ross, Heritage Fund Administrator. Ashley Ross will coordinate with the Regional representatives during the planning process. An official recommendation was made to invite Margaret Bohannon to the Sipe White Mountain Wildlife Area. Comment also focused on the ability of members to inform other Committee members of any Heritage workshops or events that may be going on in their areas. Ashley Ross would coordinate the dispersal of any information passed to her.

Concerns were raised about the Heritage website not being updated. Members were informed about plans to update and revitalize the website. No questions were raised regarding the Heritage Fund Annual Report. A Committee member expressed concern about a Heritage Funded grant project (Francis Short Pond) that was not maintaining agreed upon water levels. Robyn Beck acknowledged the problem and will follow up on Monday. A suggestion was made that if Committee members were aware of grants projects in their area, they could check on them periodically to make sure they were being maintained. Further comment was made about making the press aware of any Heritage events that may be of interest to the community. New White Mountain wildlife trail maps were handed out and Debbie Freeman, Section Supervisor, was acknowledged for her generosity in obtaining them the same day they were released.

- b. **Future Meetings.** The fall meeting will be at Sipe White Mountain Wildlife Area on August 26, 2006. Notice of activities and times will be forthcoming.

**4. Adjournment:** Committee adjourned at 12:00 pm.